ENGINEERING CHANGE PROPOSAL
(SHORT FORM)

(See MIL-STD-481 for instructions)

DATE *(YYYYMMDD)*	*Form Approved*
20050425	*OMB No. 0704-0188*

PROCURING ACTIVITY NUMBER
N/A

1. ORIGINATOR NAME AND ADDRESS
Ramanathan Ramaswamy
12350 Research Parkway
Orlando, FL 32826-3276

2. CONTRACT NUMBER AND LINE ITEM

3. PROCURING CONTRACTING OFFICER
CODE | TEL

4. TITLE OF CHANGE
Modify FGS IGS Range

5. ECP NUMBER	REV	AMEND	6. CAGE CODE	7. CLASS OF ECP	8. JUST.CODE	9.PRIORITY
MCC2004003	1					High

10. SPECIFICATIONS AFFECTED

CAGE CODE	SPECIFICATION / DOCUMENT NO.	REV
	PMT 90-S002	I

11. DRAWINGS AFFECTED

CAGE CODE	NUMBER	REV

12. CONFIGURATION ITEM NOMENCLATURE / TYPE DESIGNATION / WEAPON SYSTEM CODE
N/A

13. IN PRODUCTION
[ ] YES [X] NO

14. LOWEST ASSEMBLY AFFECTED

NOMENCLATURE	PART NO.	NSN
N/A		

15. DESCRIPTION OF CHANGE (Attach a document showing [a] existing document paragraph, figure, or table and [b] modified document paragraph, figure, or table with the change incorporated).

Add a sentence to the 3rd paragraph of section 3.2.3.2 about including a selectable alternate routine for guided missile routines.
Table D2
Add a note as follows:
NOTE: The design shall include a selectable alternate routine for Code No. 7 with the same specified parameter values for 2600 m range IGS & FGS regardless of the actual range.

16. NEED FOR CHANGE

This change will allow interoperability with currently fielded MILE (Basic, SAWE/MILES II, and MILES XXI)

17. EFFECT ON ASSOCIATED EQUIPMENT

18. PRODUCTION EFFECTIVITY BY SERIAL NUMBER

19. EFFECT ON PRODUCTION DELIVERY SCHEDULE

20.RECOMMENDED RETROFIT EFFECTIVITY

21. ESTIMATED KIT DELIVERY SCHEDULE

22. ESTIMATED COST/SAVINGS

23. SUBMITTING ACTIVITY AUTHORIZING SIGNATURE
Ramu, Ramswamy, Signed 11/8/2004

23.a. TITLE
Engineer, PEOSTRI

24. APPROVAL/DISAPPROVAL a. RECOMMENDED [X] APPROVAL [ ] DISAPPROVAL

b. APPROVAL	c. GOVERNMENT ACTIVITY	SIGNATURE	DATE *(YYYYMMDD)*
[X] APPROVED [ ] DISAPPROVED	PEOSTRI 12350 Research Parkway Orlando, FL 32826-3276	Perry R. Smith, LTC AD PMLTS	*20041108*
d. APPROVAL	e. GOVERNMENT ACTIVITY	SIGNATURE	DATE *(YYYYMMDD)*
[ ] APPROVED [ ] DISAPPROVED			

DD FORM 1693, AUG 96 (EG) PREVIOUS EDITION MAY BE USED. Designed using Microsoft Word, Dec 99

15a. Existing document paragraph, figure, or table.

TABLE D2: MILES CODE PARAMETERS FOR GUIDED MISSILE ROUTINE

S Code No.	Range (meters)	IGS Transmit Time for DA (s)	IGS No. of Messages / second	FGS Transmit Time for DB (s)	FGS No. of Messages / Second	Light Weapon Hit Code No.	Delay D1 (ms)	No. of Light Weapon Words	Tracking Interval T(s)	No. of Messages for "Hit" Eval. (GK)
02		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
03		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
07	1000	2	8	1	16	27	121.3	128	15	22
07	1200	3	5.33	1	16	27	121.3	128	15	22
07	1500	3	5.33	2	8	27	121.3	128	15	22
07	1700	4	4	2	8	27	121.3	128	15	22
07	2000	5	3.2	2	8	27	121.3	128	15	22
07	2200	6	2.67	2	8	27	121.3	128	15	22
07	2400	7	2.29	2	8	27	121.3	128	15	22
07	2600	8 *	2 *	2*	8 *	27 *	121.3*	128 *	15	22
07	2800	9	1.78	2	8	27	121.3	128	15	22
07	3000	10	1.6	2	8	27	121.3	128	15	22
07	3300	11	1.45	2	8	27	121.3	128	15	22
07	3500	12	1.33	2	8	27	121.3	128	15	22
07	3750	13	1.23	2	8	27	121.3	128	15	22
08		4 *	4 *	2 *	8 *	27 *	121.3*	128 *	6 *	22

* BASIC MILES: Note: Each missile message consists of eight (8) missile words.

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Section 3.2.3.2, 3rd Paragraph

The two separate GMM sequences, IGS, and FGS, are formulated to accommodate the time of flight and the guidance characteristics of a particular guided missile weapon. Usually, the missile guidance is more critical near the end of the time of flight so that DA is larger than DB and the number, Ig, of GMMs in the IGS may be equal to or less than the number, Fg, of GMMs in the FGS. The MCC decoder must successfully decode a specified number, Gk, of GMMs from the combined IGS and FGS of the total Guided Missile Routine. Refer to Figure 4 (below) for Guided Missile Routine format and to Appendix D for GMR parameter values for a particular Guided Missile Weapon in the MILES system.

15b. Modified document paragraph, figure, or table with the change incorporated.

TABLE D2: MILES CODE PARAMETERS FOR GUIDED MISSILE ROUTINE

S Code No.	Range (meters)	IGS Transmit Time for DA (s)	IGS No. of Messages / second	FGS Transmit Time for DB (s)	FGS No. of Messages / Second	Light Weapon Hit Code No.	Delay D1 (ms)	No. of Light Weapon Words	Tracking Interval T(s)	No. of Messages for "Hit" Eval. (GK)
02		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
03		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
07**	1000	2	8	1	16	27	121.3	128	15	22
07**	1200	3	5.33	1	16	27	121.3	128	15	22
07**	1500	3	5.33	2	8	27	121.3	128	15	22
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07**	3750	13	1.23	2	8	27	121.3	128	15	22
08		4 *	4 *	2 *	8 *	27 *	121.3*	128 *	6 *	22

Note: Each missile message consists of eight (8) missile words.
* BASIC MILES
****** Code No. 7: The design shall include a selectable alternate routine with the same specified parameter values for 2600 m (Basic MILES 10sec time of flight) range IGS & FGS regardless of the actual range.

Section 3.2.3.2, Paragraph 3

The two separate GMM sequences, IGS, and FGS, are formulated to accommodate the time of flight and the guidance characteristics of a particular guided missile weapon. Usually, the missile guidance is more critical near the end of the time of flight so that DA is larger than DB and the number, Ig, of GMMs in the IGS may be equal to or less than the number, Fg, of GMMs in the FGS. The MCC decoder must successfully decode a specified number, Gk, of GMMs from the combined IGS and FGS of the total Guided Missile Routine. Refer to Figure 4 (below) for Guided Missile Routine format and to Appendix D for GMR parameter values for a particular Guided Missile Weapon in the MILES system. The design shall include a selectable alternate routine that has the same parameters for a 2600 m range (Basic MILES 10sec time of flight) for IGS and FGS regardless of the actual range. See Appendix D, Table D2.